

## **Remarks**

### **Pending Claims**

Claims are canceled herein solely to expedite prosecution of the instant application and without prejudice to pursuing these claims in continuing and other related applications. No new matter is added by this amendment. Support for amended claims and newly added claims are found throughout the specification, in the claims as originally presented and in the Figures. In particular, attention is directed to the present application at page 38, page 41, lines 3-8, page 40, line 25 through page 41, line 1, and page 57, lines 5-7. Support for antibodies that are generated against a polypeptide of at least about 5 amino acids of the amino acid sequence of SEQ ID NO. 4 may be found at page 44, lines 6-9, for example. Support for antibodies which do not bind to endothelial may be found at page 78, lines 15-18. Support for antibodies that immunoprecipitate a 40kd protein from 293T cells transfected with LAT cDNAs but which do not immunoprecipitate said protein from non-transfected cells may be found in Figure 2B. Support for the newly added method claims may be found, for example, at least at pages 38-43 and in the Examples.

Applicants thank the Examiner and his SPE for their helpful comments during the interview of August 27, 2003. The amendments and newly added claims provided with this response are made to address the issues raised by the Examiner and his SPE during the interview. It is believed that the amendments and newly added claims place the application in condition for allowance. Accordingly, favorable consideration of the amendments and newly added claims is earnestly solicited at this time.

**Rejection of Claims 73-77, 79-82 and 84 Under 35 U.S.C. § 102(b) (Buday) and Rejection of Claims 73-78 and 80-83 Under 35 U.S.C. § 102(e) (Hirth)**

Claims 73-77, 79-82 and 84 are rejected under 35 U.S.C. § 102(b) as being anticipated by Buday, et al., *The Journal of Biological Chemistry* 269: 9019-9023, 1994 ("Buday").

The Examiner asserts that Buday teaches an antibody specific for phosphotyrosine which is a portion of SEQ ID NO. 4 and therefore that the antibody of Buday would bind to SEQ ID NO: 4. The Examiner's position with respect appears to be that because the claims do not state that the antibody must bind exclusively to LAT, Buday's antibody is encompassed within the meaning of the claims. Claims 73-78 and 80-83 are similarly rejected under 35 U.S.C. § 102(e) over Hirth, et al., U.S. Patent 5,058,959 ("Hirth"). The Examiner asserts that the antibody of Hirth is directed against a phosphotyrosine residue and as such, because the term "portion" reads on a single amino acid, Hirth allegedly anticipates the claims.

Applicants respectfully traverse the rejection because it relies on an interpretation of the claim term "specifically binds" which is contrary to the interpretation accorded by those of skill in the art, i.e., one of ordinary skill in the art at the time of filing would understand that a LAT-specific antibody does not cross-react with other non-LAT proteins and therefore that the claims do not encompass the antibodies of either Buday or Hirth.

Indeed, the Patent Office has taken Applicants' position time and time again, in issuing numerous patents with claims to antibodies generated against polypeptides from proteins which can exist in phosphorylated or unphosphorylated states. For example, a brief review of the uspto.gov patent database identifies at least 22 patents with claims to antibodies defined as "specifically binding" or even simply "binding" to proteins that can exist in a phosphorylated state. These patents include:

1. 6,545,129 Human selenoprotein ;
2. 6,627,741 Antibodies to secreted protein HCEJQ69
3. 6,605,441 Antibodies against fibroblast growth factor 11
4. 6,660,485 Antibodies to human goose-type lysozyme
5. 6,579,972 Extracellular signal-regulated kinase, sequences, and methods of production and use
6. 6,576,745 Human cystatin F antibodies
7. 6,472,512 Keratinocyte derived interferon
8. 6,472,195 Human kallikrein
9. 6,455,040 Tumor necrosis factor receptor 5
10. 6,413,726 Antibodies that specifically bind Cytostatin III
11. 6,403,770 Antibodies to neutrokin- $\alpha$
12. 6,368,810 Glutathione S-transferase homolog
13. 6,358,711 Antibody to human testin and methods of making and using
14. 6,348,574 Seven transmembrane receptors
15. 6,265,550 Insulin receptor tyrosine kinase substrate
16. 6,201,107 Cystic fibrosis gene
17. 6,184,358 IP-10/Mig receptor designated CXCR3, antibodies, nucleic acids, and methods of use therefor
18. 6,150,116 Transcription factor DP-1 antibody
19. 6,124,436 Purified mammalian monocyte antigens and related reagents
20. 6,090,621 Signaling inositol polyphosphate 5-phosphatases (SIPs)
21. 5,955,291 Antibodies recognizing tie receptor tyrosine kinase and uses thereof
22. 5,910,574 Human trk receptors and neurotrophic factor inhibitors

Clearly, each of these patents should have been rejected under 35 U.S.C. 102 over Buday and/or Hirth if the U.S. Patent Office had adopted the Examiner's reasoning as reasonably reflecting those of ordinary skill in the art at the time of filing the respective applications. Further, each of the above-cited patents should be held invalid if the Examiner's rejections are maintained.

Because Buday's and Hirth's antibodies cross-react with *many* non-LAT polypeptides, Applicants respectfully submit that neither the Buday nor Hirth patent anticipate claims drawn to LAT-specific antibodies.

Further neither reference anticipates or renders obvious claims which recite that the antibodies do not bind to endothelial cells. Both Buday's antibody and Hirth's antibody would bind to endothelial cells.

Additionally, at the August 27, 2003 interview, the Examiner and his SPE acknowledged that none of the cited references anticipated or suggested methods of making antibodies by immunizing an animal with at least five amino acids of SEQ ID NO: 4 (e.g., as recited in claims 94-107).

In view of the above arguments, Applicants respectfully request that the rejection should be reconsidered and withdrawn and that the claims be deemed allowable in view of the prior art.

#### **Rejection of Claims 61-72 Under 35 U.S.C. § 112, First Paragraph**

Claims 61-72 are rejected under 35 U.S.C. § 112, first paragraph as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants traverse the rejection; however, Applicants have cancelled the claims purely to expedite prosecution of the application. Thus, Applicants respectfully submit that the rejection is moot in view of this cancellation. Accordingly, Applicants respectfully request that the rejection be reconsidered and withdrawn.

#### **Rejection of Claims 74-77 Under 35 U.S.C. § 112, Second Paragraph**

The Examiner alleges that the claims are indefinite asserting whether a polypeptide comprising at least 5 amino acids which comprises at least 20 amino acids refers to a polypeptide

of at least 5 or at least 20 amino acids. Applicants traverse the rejection and respectfully submit that the meaning of the claims would be obvious to those of ordinary skill in the art. However, purely to expedite prosecution of the applicants, Applicants have deleted the objected to claim language.

### CONCLUSION

Applicants submit that the claims are allowable and that the Application is now in condition for allowance. Applicants respectfully request early favorable action by the Examiner.

If the Examiner believes that a telephone conversation with Applicants' attorney would expedite prosecution of this application, the Examiner is cordially invited to call the undersigned agent of record.

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